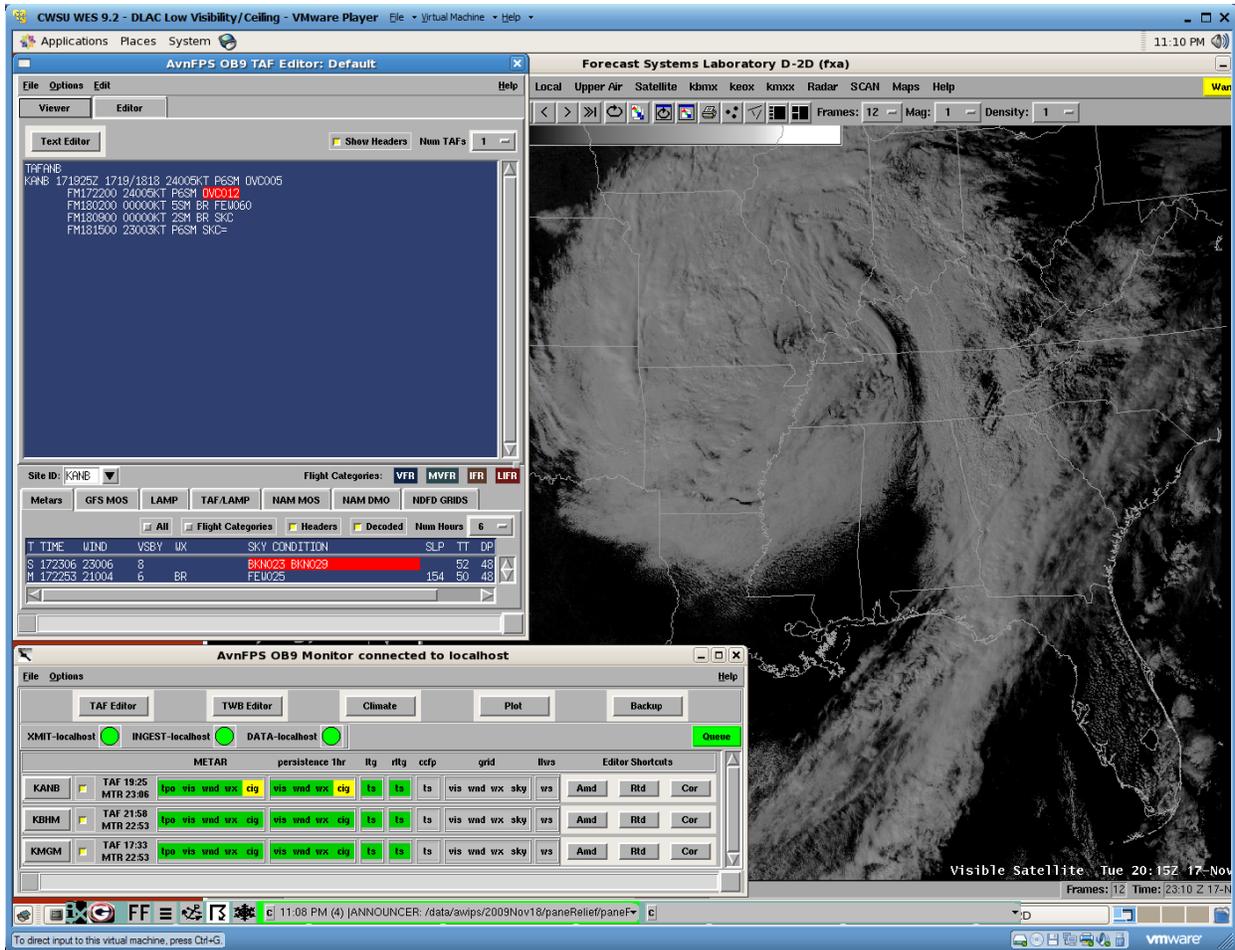


# Virtual NWS Weather Event Simulator 9.2 for CWSUs External Drive Documentation for Windows



NOAA NWS Warning Decision Training Branch  
Norman, OK

# Contents

<b>I</b>	<b>Drive Installation and Usage Documentation</b>	<b>1</b>
<b>1</b>	<b>Installing the Internal eSATA Bracket (Optional)</b>	<b>1</b>
1.1	Prerequisites . . . . .	1
1.2	Instructions . . . . .	1
<b>2</b>	<b>Connecting the External Drive</b>	<b>4</b>
2.1	Prerequisites . . . . .	4
2.2	Instructions . . . . .	4
<b>3</b>	<b>Installing/Uninstalling VMware Player</b>	<b>6</b>
3.1	Installing VMware Player . . . . .	6
3.2	Uninstalling VMware Player . . . . .	6
<b>4</b>	<b>Using VMware Player with WES Simulations</b>	<b>8</b>
4.1	Starting Up the Virtual Machine . . . . .	8
4.2	Closing Down the Virtual Machine . . . . .	9
4.2.1	Shutting down the Virtual Machine . . . . .	9
4.2.2	Suspending the Virtual Machine . . . . .	10
<b>II</b>	<b>Additional Scripts and Procedures</b>	<b>11</b>
<b>5</b>	<b>Transferring a Virtual Machine Folder to a Local Drive</b>	<b>11</b>
<b>6</b>	<b>Recovering a Corrupt Machine on the External Drive</b>	<b>12</b>

## Part I

# Drive Installation and Usage Documentation

## 1 Installing the Internal eSATA Bracket (Optional)

If the machine does not have any external eSATA slots available, the package contains an internal eSATA bracket which can be installed inside the tower to provide eSATA connectivity to the drive. If the machine does not meet the prerequisites below, you can still connect the drive via USB 2.0 and follow the instructions from Section 2 onward.

### 1.1 Prerequisites

In order for installation to occur, the following prerequisites must apply to the machine:

- No external eSATA ports available
- An empty bracket slot in the back of the machine
- An open SATA slot on inside the machine

### 1.2 Instructions

The following hardware is needed to complete these steps:

- (a) Internal SATA to eSATA 1 Port Host Bracket with Cord

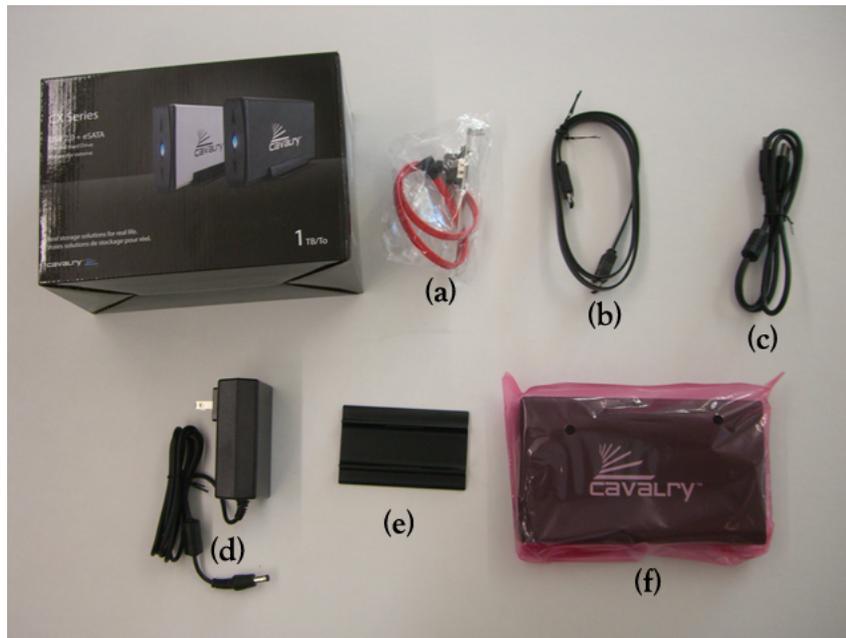


Figure 1: An overview of the external hardware components

If the above prerequisites are met, please follow the instructions below:

1. Power off the computer

2. Attaching the eSATA host bracket to the machine:

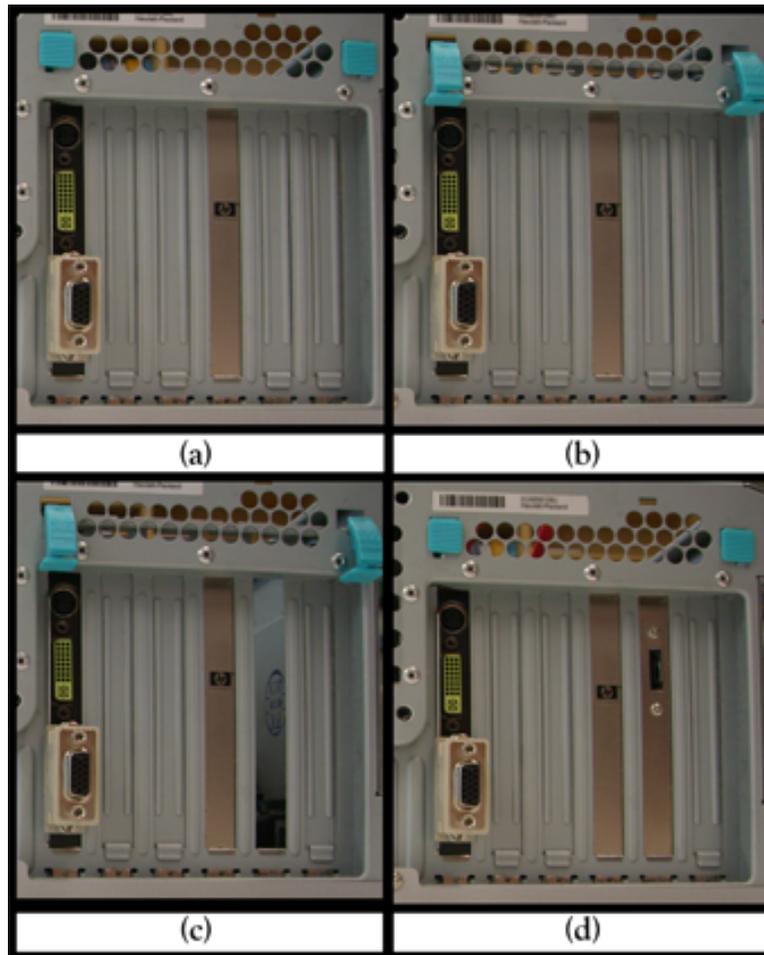


Figure 2: eSATA bracket installation.

- (a) Find an open access slot (e.g. SATA1) where the bracket can be placed.
- (b) Open up the side of the machine and unlock any bracket tabs that are keeping the bracket slots in place.
- (c) Pull out an empty placeholder bracket.
- (d) Insert the eSATA bracket with the cord facing into the machine and lock the bracket into place..

3. Plugging the internal eSATA cord into the SATA slot:

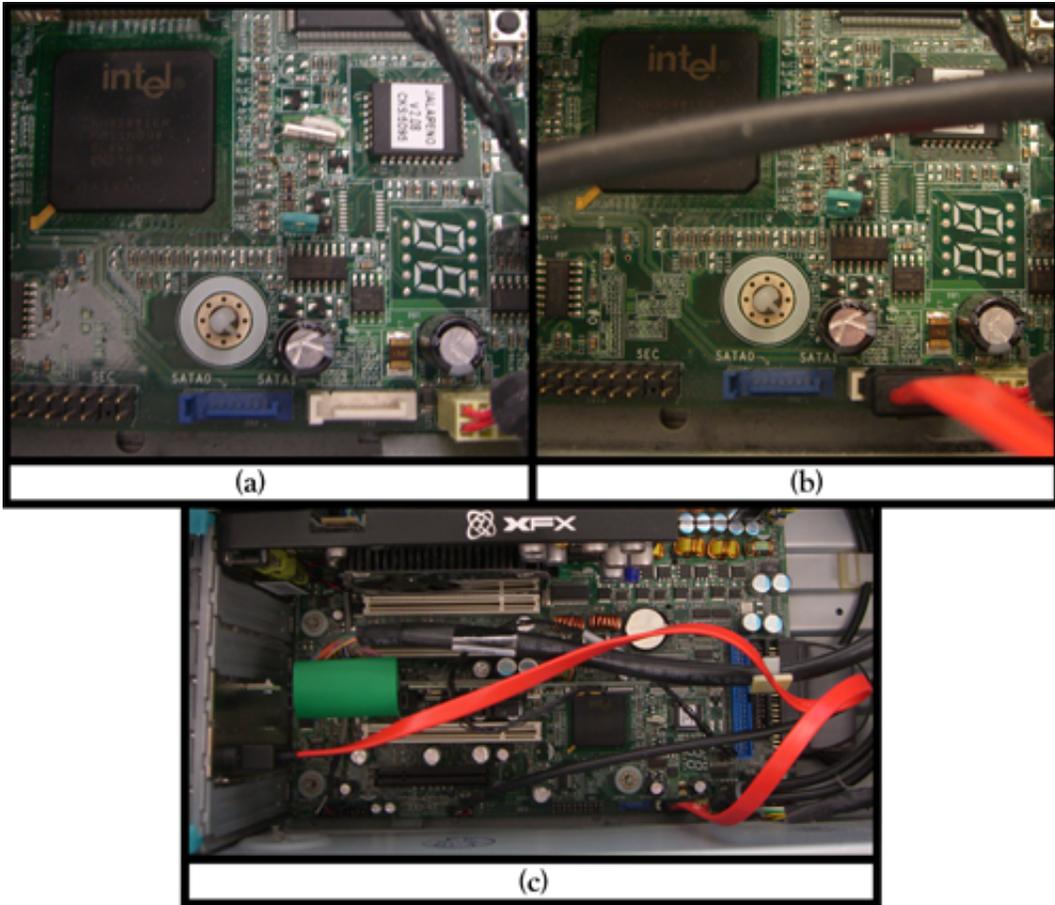


Figure 3: Connecting the internal eSATA cord.

- (a) Find an unoccupied SATA port inside the machine. The most likely location for this will be near the motherboard.
- (b) Plug the internal eSATA cord into the SATA slot.
- (c) You have completed the internal connection process. Close up the side of the machine.

## 2 Connecting the External Drive

There are two connection options for transferring data between the external drive and the local computer: External Serial Advanced Technology Attachment (eSATA) or Universal Serial Bus (USB) 2.0. The eSATA technology allows for much faster transfer rates between devices compared to USB2.0. As a result, a connection via eSATA could allow for virtual machine playback directly from the external drive with no local case transfer. Because eSATA technology is still relatively new, your machine may not have any external eSATA ports available. The external drive kit comes with an internal eSATA bracket which can be installed by following the instructions in Appendix A. The instructions below outline how to connect the external drive through either eSATA or USB2.0.

### 2.1 Prerequisites

The following hardware is needed to complete these steps:

- (b) External eSATA Cord OR (c) External USB Cord
- (d) AC Power Adapter
- (e) External Hard Drive Stand
- (f) External Hard Drive

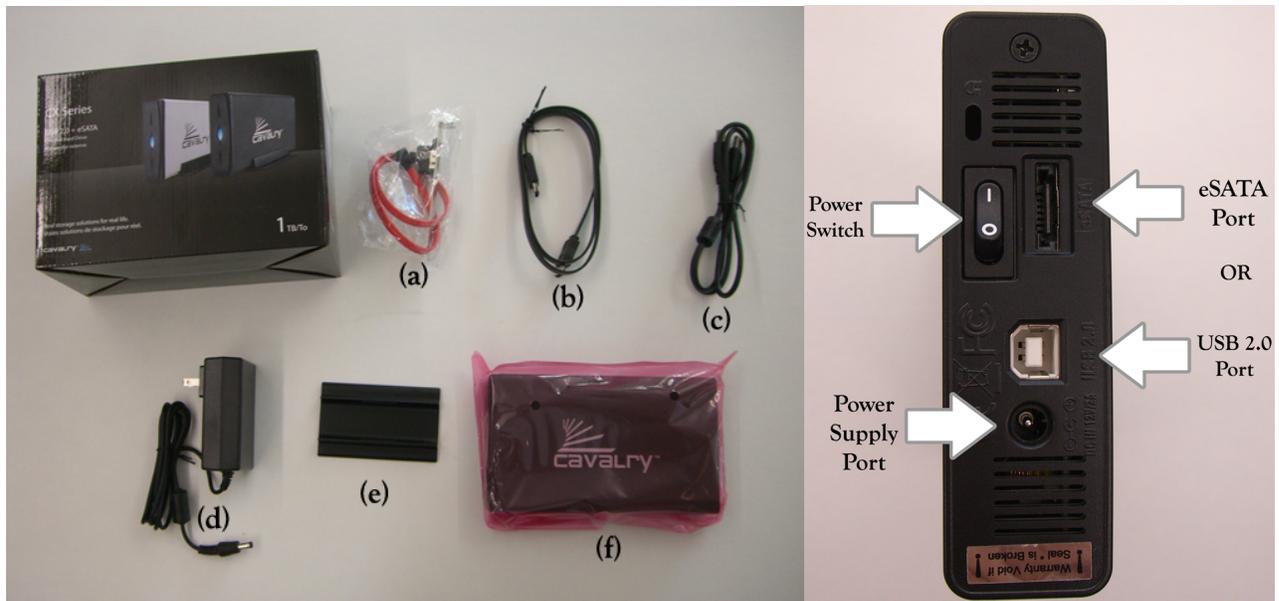


Figure 4: Kit component and drive inputs

### 2.2 Instructions

1. Power on the workstation.
2. If you are using eSATA, plug the external eSATA cord (b) into the back of the external drive. If you are using USB, plug the external USB cord (c) into the back of the external drive.
3. If you are using eSATA, plug the other end into the eSATA slot on the computer (either an available external eSATA slot or the slot installed with the eSATA host bracket on the back of the machine). If you are using USB, plug the other end into an open USB slot on the computer.
4. Plug in the external drive power supply (d) and place the drive in its stand (e).

5. Power on the external drive.
6. Check to see if the drive was mounted properly by double-clicking on the My Computer icon (Windows XP) or opening up the Computer menu (Windows 7)

NOTE: This new drive will have a capacity of 931 GB with the label “wesdrive”

- (a) If no drive was found, try rebooting the system and repeat this step.

## 3 Installing/Uninstalling VMware Player

### 3.1 Installing VMware Player

The external drive contains a `VMware-player-3.1.3-324285.exe` program. This file is used to install the VMware Player, a required component for the WES 9.2 virtual machine to operate in a Microsoft Windows environment. This procedure outlines the steps to install this software bundle onto a CWSU Windows machine.

1. Log on to the Windows machine as a user with administrator privileges
2. Navigate to the `vm_installers` folder on the external drive and double-click on the `VMware-player-3.1.3-324285.exe` file
3. This will launch a Graphical User Interface (GUI) and you will be prompted with the following messages:
  - (a) Welcome to the installation wizard for VMware Player
    - i. Click on the `Next` button to go to the next screen
  - (b) Destination Folder, Click `Next to install to this folder or click Change...` to install to a different folder
    - i. Click on the `Next` button to go to the next screen
  - (c) Software Updates, When would you like to check for updates of your software?
    - i. Uncheck the `Check for product updates on startup` box and click on the `Next` button to go to the next screen
  - (d) User Experience Improvement Program, Would you like to send feedback to VMware?
    - i. Uncheck the `Help Improve VMware Player` box and check `Next` to go to the next screen
  - (e) Shortcuts, Select the shortcuts you wish to place on your system
    - i. Ensure the `Desktop` box is checked and customize the remaining options to your preferences before hitting the `Next` button to go to the next screen
  - (f) Ready to Perform the Requested Operations
    - i. Click the `Continue` button to begin installation of VMware Player
  - (g) Setup Wizard Complete
    - i. Click on the `Restart Now` button to reboot the machine and complete the installation

### 3.2 Uninstalling VMware Player

1. Log on to the Windows machine as a user with administrator privileges
2. Navigate to Control Panel Click on `Start` → `Control Panel` → `Add or Remove Programs`, find `VMware Player` in the list, and click on the `Change/Remove` button (Figure 5)

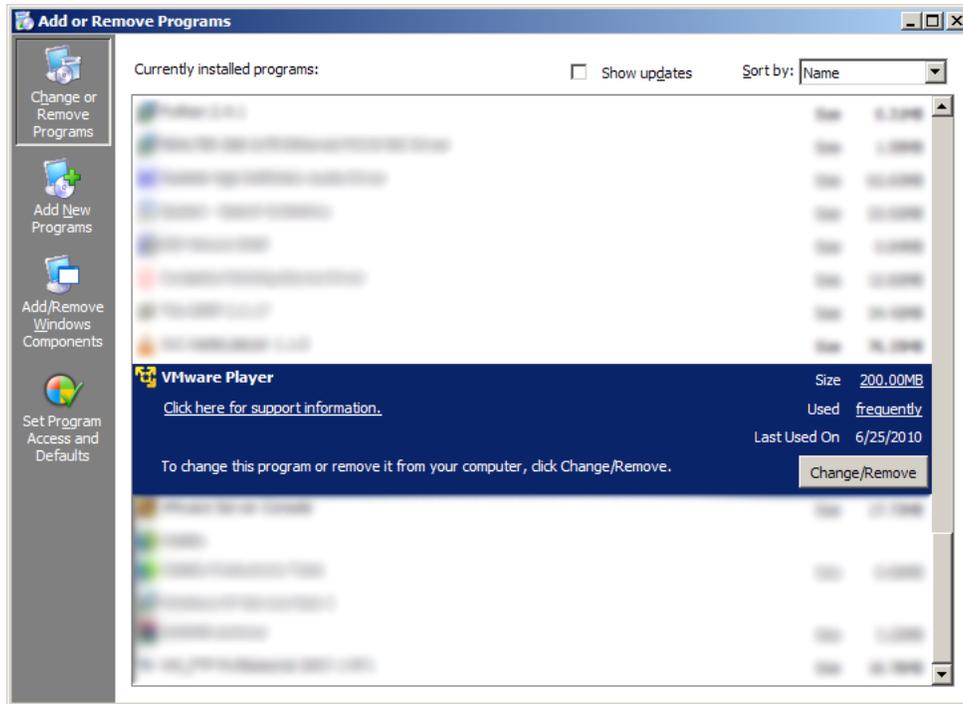


Figure 5: VMware Player in the Add or Remove Programs Window

3. This will launch a Graphical User Interface (GUI) and you will be prompted with the following messages:
  - (a) Welcome to the installation wizard for VMware Player
    - i. Click on the Next button to go to the next screen
  - (b) Program Maintenance, Repair or remove the program
    - i. Click on the Remove button to go to the next screen
  - (c) Ready to Perform the Requested Operations
    - i. Click on the Continue button to begin the uninstall process
  - (d) Setup Wizard Complete
    - i. Click on the Restart Now button to reboot the machine and complete the uninstallation

## 4 Using VMware Player with WES Simulations

### 4.1 Starting Up the Virtual Machine

1. Log on to the Windows machine
2. Launch the VMware Player application through either a Desktop or Start Menu shortcut

NOTE: You will receive a VMware Player End User License Agreement the first time this application launches. Read through the terms and conditions and select “Yes, I accept the terms in the license agreement” if you agree to the terms followed by the OK button.

3. This will open the VMware Player launcher menu (Figure 6)

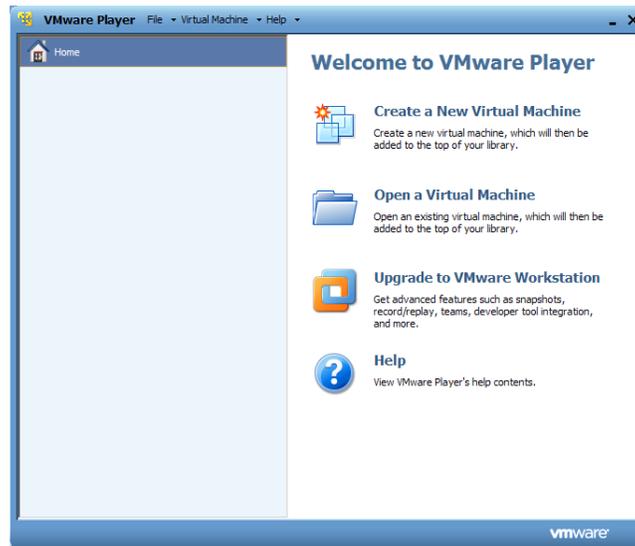


Figure 6: VMware Player Launcher Menu.

- (a) Select the **Open a Virtual Machine** button to launch open up the folder selector (Figure 7)

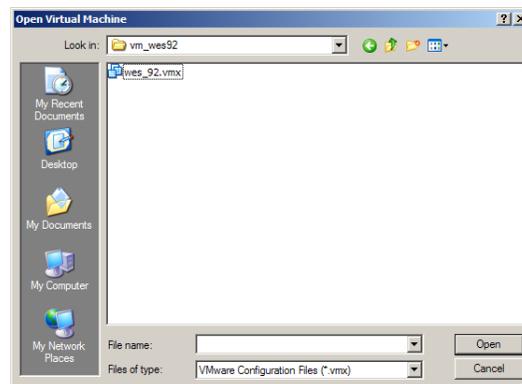


Figure 7: Virtual Machine Folder Selector

- i. Navigate to the directory path where the machine was uncompressed.
  - ii. Find the `cwsu_vmwes92.vmx` file and select it
  - iii. Click the `Open` button
- (b) There will now be a virtual machine entry in the VMware Player launcher menu. Select this entry and click on the `Play virtual machine` button to launch the machine (Figure 8)

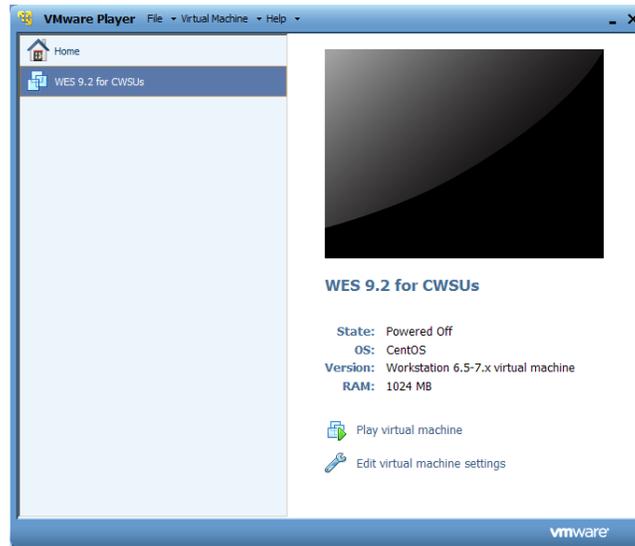


Figure 8: VMware Player Launcher Menu With WES 9.2 Loaded

NOTE 1: If this is the first time the WES 9.2 virtual machine is opened, you may receive the following prompt stating “This virtual machine may have been moved or copied...”. Click on the `I copied it` button. In addition, you may be prompted with VMware hints which can be disabled by selecting the `Never show this hint again` box and clicking the `OK` button.

NOTE 2: You may receive a message box that starts out with “The following software is available for download...”. If you receive this, click on the `Remind Me Later` button. It is recommended that you disable checking for software updates using the following steps:

- (a) In the VMware menu, select `File` → `Player Preferences...`, this will open a Preferences window.
  - (b) In the Software updates section, uncheck the “`Check for software components as needed`” box and click on the `OK` button.
4. The main account user for the WES 9.2 virtual machine is the `fxa` user with a default password of `fxapass`. Use these credentials to log on to the machine.

**CONGRATULATIONS! You are ready to use the Weather Event Simulator**

## 4.2 Closing Down the Virtual Machine

### 4.2.1 Shutting down the Virtual Machine

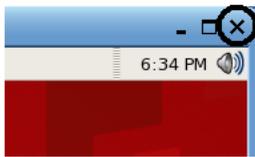
1. Shutting down the WES 9.2 virtual machine can be done by selecting `System` → `Shut Down...` from the operating system inside the virtual machine (Figure 9)



Figure 9: Shutting down the WES 9.2 virtual machine

#### 4.2.2 Suspending the Virtual Machine

1. Suspending the virtual machine will save its current state (including the state of all applications and processes running within the virtual machine) to be restored later. This can be done by clicking the X button in the corner of the VMware Player window. The X button is located either in the upper-right hand corner of the VMware Player window if it is not maximized (Figure 10(a)) or at the top of the VMware Player window if it is maximized (Figure 10(b)).



(a)



(b)

Figure 10: Locations of Close Window (X) Button to Suspend the WES 9.2 Virtual Machine

## Part II

# Additional Scripts and Procedures

### 5 Transferring a Virtual Machine Folder to a Local Drive

The performance of the computer plays a role in the speed and behavior of the virtual machine. Some computers may not have the bandwidth to run the virtual machine directly off of the external drive. This is especially the case if the drive is connected via USB 2.0. If playing the machine off of the external drive yields sluggish performance, we recommend transferring the case to a local drive on the Windows machine using the instructions below.

1. Navigate to the external drive by double-clicking on the My Computer icon (Windows XP) or opening up the Computer menu (Windows 7)
2. Copy a virtual machine folder (e.g. `dualpol_primer`) to a local drive path (e.g. `C:\`) where you want the virtual machine to be inflated (Figure 11). Depending on the size of the folder and the speed of your machine, this may take some time.

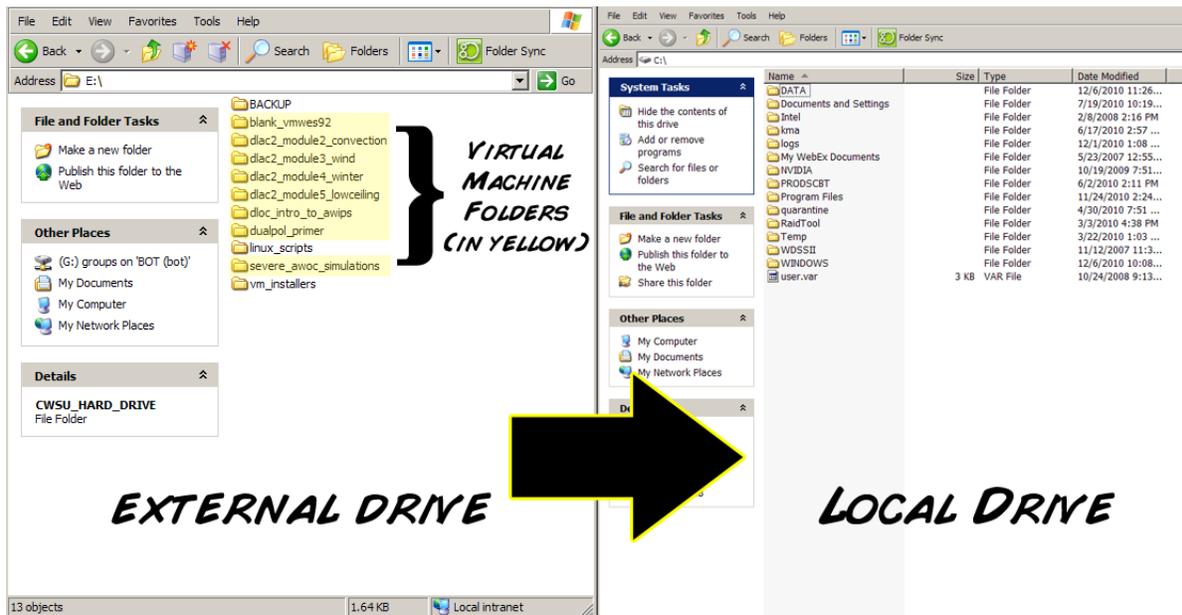


Figure 11: Example transfer from external to local drives

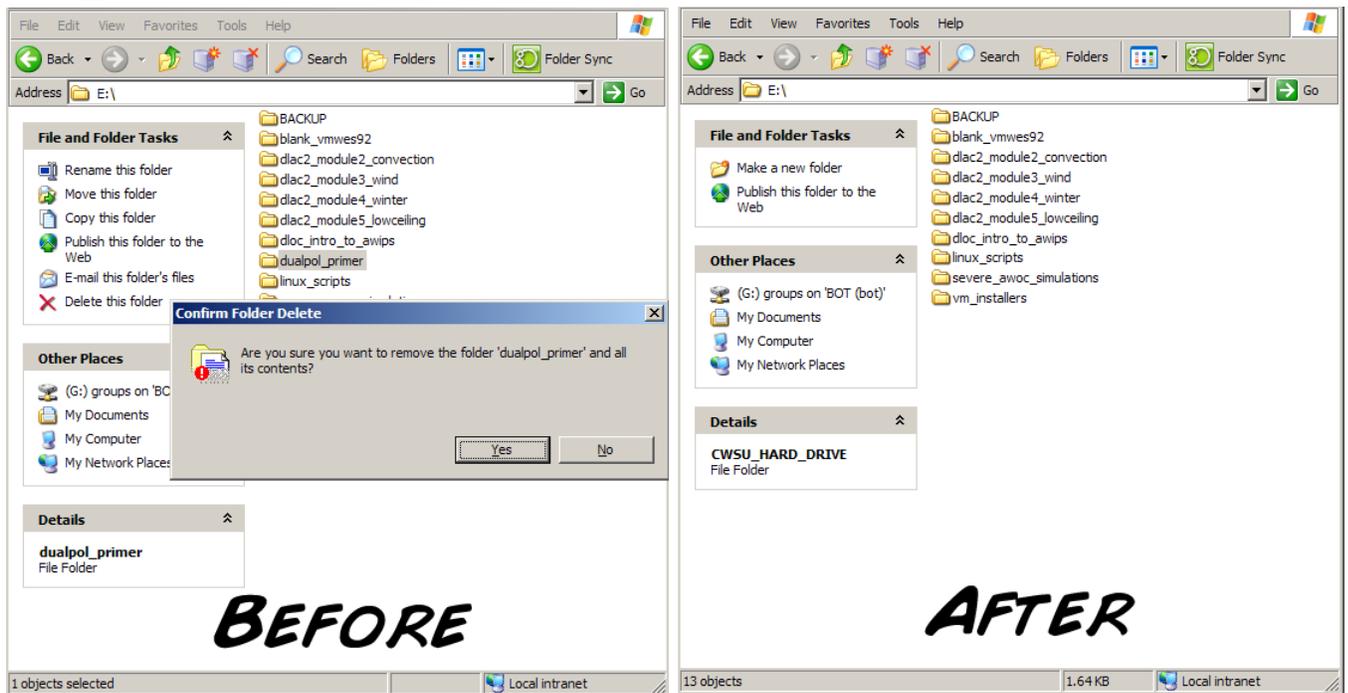
NOTE: Depending on which virtual machine folder that was copied from the external drive, you will need anywhere from 20-50GB of free space on your local drive

3. With the machine copied to your local drive, you can now launch the VMware Player load the machine from this local path. See the "Using VMware Player with WES Simulations (Windows)" document for instructions on how to launch/use VMware Player.

## 6 Recovering a Corrupt Machine on the External Drive

If you suspect a virtual machine directory on the external drive is corrupt, we have provided compressed versions of all virtual machines in a BACKUP directory on the external drive. You can restore this directory using the instructions below.

1. Navigate to the external drive by double-clicking on the **My Computer** icon (Windows XP) or opening up the **Computer** menu (Windows 7). For example, we will say the drive was mounted in **E:\**.
2. Remove the folder you suspect is corrupt. In Figure 12, we assume the **dualpol\_primer** directory is corrupt and delete it. Any of the other 7 virtual machine folders can be restored the same way.



(a) Deleting the `dualpol_primer` directory

(b) The `dualpol_primer` directory should be completely gone

Figure 12

3. Navigate to the **BACKUP** directory and find a copy of the directory you just deleted. From Figure 12, we deleted the `E:\dualpol_primer` directory, so we will be looking for the `E:\BACKUP\dualpol_primer` directory.
4. Copy this directory up one directory. In the example below (Figure 13), we copy the `E:\BACKUP\dualpol_primer` directory to `E:\`, leaving a new `E:\dualpol_primer` path. Depending on the size of the machine and the speed of your computer, this may take some time.

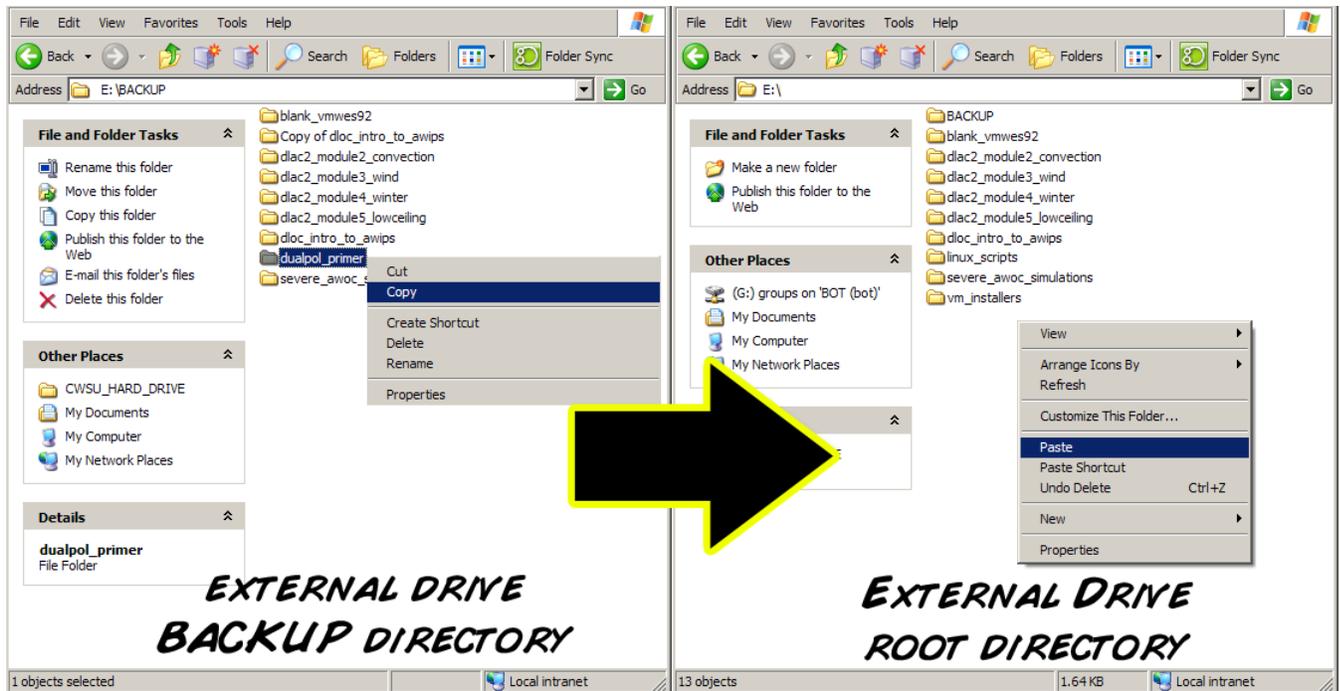


Figure 13: Copying from the BACKUP directory to the external drive root directory

- Once the copy is complete, navigate to the copy location (e.g. E:\dualpol\_primer) and run the `inflate_archive_windows.bat` script to inflate the archive contents (Figure 14). Depending on the size of the machine and the speed of your computer, this may take some time.

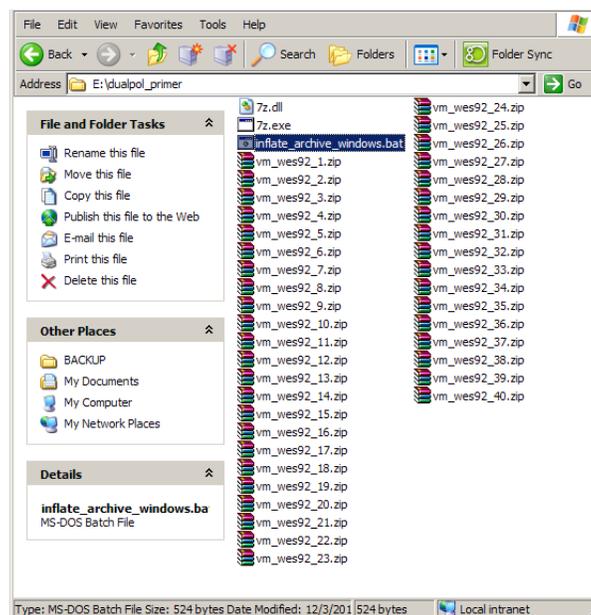


Figure 14: An example of the `inflate_archive_windows.bat` script from the copied folder

- When the script is finished, the virtual machine in that directory will be ready for viewing with VMware Player.